

a length about three times its diameter, the third as long as the second, the fourth about one half longer than the third. Abdominal segments sparsely margined posteriorly with whitish hairs. Ovipositor short, the lobes slender, with a length thrice the width. Otherwise nearly as in the male.

Reared from a woolly, oval gall on the lateral veins of shadbush, Amelanchier, taken by Miss Cora H. Clarke at Magnolia, Mass. Type C. a1859.

TWO NEW APHIDS FROM CALIFORNIA¹

By W. M. DAVIDSON, U. S. Bureau of Entomology, San José, Cal.

So far as I can determine no plant louse has been reported from the California laurel (*Umbellularia californica* Nutt.) and so I will proceed to describe an aphid taken by me on this tree at San José, California, on July 1, 1911.

Hyadaphis umbellulariæ sp. nov.

Alate viviparous female.—Head, thorax, and abdomen green with a powdery white covering. Eyes crimson. Thoracic lobes and scutellum dark purplish-black; Head on the dorsum dark purple. Antennæ little over half the length of the body. joint III and the filament of about equal length. Comparative lengths of the joints as follows: I .09 mm., II .06 mm., III .39 mm., IV .26 mm., V .23 mm., VI .10 mm., filament .38 mm. Legs green and powdery like the body; femoral apices, tibial apices, and tarsi purplish-black. Tibiæ with two rows of spines, one on either side. Abdomen pale green with transverse white powdery bars. Cauda dusky, 0.14 mm. in length, narrow, tapering. Cornicles green, smaller than the cauda, in length 0.08 mm., broad at the base, then narrowing to two-thirds their maximum width at basal fourth, and thence widening distally so that their width at the apex equals twice that at the base. Wings large; veins pale brown, second fork of third discoidal a little nearer wing apex than first fork; stigma fairly long and narrow, green, as are also the insertions and sub-costal vein. The sensoria on the antennæ are disposed as follows: joint III has 25–30; joint IV 5–9; joint V 1 near the apex; joint VI, 1 terminal. Those on joint III are placed irregularly and are small, those on joint IV are in a single row and their size is similar to those in joint III. Beak short, reaching second coxa, green with the extreme tip black. Mesosternum black.

Measurements of the body.—Length of body, 1.80 mm.; breadth of body, 0.65 mm.; wing expanse, 5.75 mm.

Taken on the underside of the leaves of California Laurel (*Umbellularia californica* Nutt.) July 1, 1911. Habitat: San José, California.

Cryptosiphum tahoense sp. nov.

Winged oviparous female.—Dark olive green, newly hatched specimens paler. Head, thoracic lobes and scutellum dark brown. Eyes dark red. Antennæ olive green, hardly one third as long as the body, on frontal tubercles. Ocelli distinct. Prothorax and abdomen olive green. Lateral tubercles absent. Abdomen with

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seven or eight indistinct transverse brown bars. Cornicles very small, hardly more than a raised rim on surface of abdomen, dusky. Cauda rounded, short, with small hairs at edge. Legs olive green with distal two thirds of the femora and coxæ darker. Wings of moderate size, insertions and costa green. Stigma short, protruding into wing at the point where it is joined by the stigmatic vein. First two discoidals rather thick, brown, with their origins close together. Third discoidal with two branches, generally obsolete at its base, second fork equidistant from first fork and apex of the wing. The subcostal vein bends slightly into the wing at the point where it receives the two discoidal veins. Hind wings with two discoidals. Sternum black. Beak not reaching second coxæ, light green. About the first of September winged females began to develop. These contained from five to seven eggs in them at that time. Sensoria on antennæ as follows: joint III, 7-9; IV, V, VI, each with one apical sensorium. All sensoria are transverse.

Measurements.—Length of body, 1.8 mm.; breadth of body, .75 mm.; expanse of wings, 4.75 mm.; antennal joints I, .06; II, .04; III, .23; IV, .13; V, .12; VI, .11; VII, .04.

Pupa.—Olive green, younger individuals pale green and with the compound eyes not fully developed. Antennæ one fourth length of body, pale green. Legs pale green, coxæ and femora darker. Wing pads olive green. Cauda and cornicles as in the winged form. Abdomen on the dorsum with seven or eight transverse rows of small brown dots which apparently become the indefinite brown bars of the winged form. Beak very short, olive green.

Viviparous apterous female.—Before depositing young, greyish-brown, abdomen much distended, with considerable reddish mottling on the dorsum of abdomen and thorax, also with eleven transverse darker bars on dorsum of abdomen and dark areas on head and thorax. Cauda dark brown, rounded, short. Cornicles as in winged female. Antennæ very small, one eighth length of body, four-jointed, pale. Legs short, olive green. Abdomen on the under side with six short median transverse dark bars.

Measurements.—Length of body, 2.2 mm.; breadth of body, 1.22 mm.; antennal joints, I, .06; II, .04; III, .12; IV, .06.

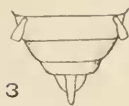
Newly hatched young.—Very pale greenish white. Eyes red. A row of minute black spots down each side of the abdomen. Antennæ three-jointed.

This aphid occurs in galls on leaves and flower- or fruit-stalks on at least two species of manzanita (*Arctostaphylos pumilla* and *A. tomentosa*). The red galls show up very prominently on green leaves of the plant. These galls are of two kinds, one on the leaf, caused by the edge being turned over or the leaf being doubled in the middle and a pocket thus formed after the manner of *Pemphigus populimonilis* Riley, the other formed on the fruit stalk. The latter becomes bullet-shaped and in all the specimens examined contained only one apterous vivipara full of unborn young. In the leaf-galls in August were found only pupæ and occasionally the old shrunken, black stem-mother. On the last day of August the pupæ began to develop into winged forms, but as I left Lake Tahoe at this date, I could not ascertain how these migrated.

Taken at Lake Tahoe, California, in August, 1911, at an elevation of 6,200 feet.



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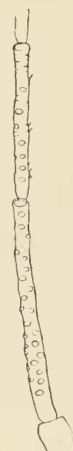
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EXPLANATION OF PLATE 23

Hyadaphis umbellularia.—Fig. 1, wing.

Hyadaphis umbellularia.—Fig. 2, head and prothorax.

Hyadaphis umbellularia.—Fig. 3, caudal end of abdomen.

Hyadaphis umbellularia.—Fig. 4, antenna.

Hyadaphis umbellularia.—Fig. 5, antennal joints III, IV.

Cryptosiphum tahoense.—Fig. 6, wing.

Cryptosiphum tahoense.—Fig. 7, antenna of the winged female.

Cryptosiphum tahoense.—Fig. 8, antenna of the wingless female.

Cryptosiphum tahoense.—Fig. 9, cornicle of the winged female.

Figures 1-4, 6, magnified 60 diameters; figures 7-9, 150 diameters; figure 5, 160 diameters.

Scientific Note

The Cotton Moth in Connecticut.—I have read with interest the notes in *Science* October 13, page 488, by Prof. H. T. Fernald, and in *Entomological News* for November, page 415, by Dr. Henry Skinner, regarding the occurrence in large numbers of the Cotton Moth, *Alabama (Aletia) argillacea* Hubn., in the Northern States the latter part of September. In New Haven, Conn., the conditions were much the same as Doctor Skinner described them in Philadelphia. Hundreds of the moths were resting on the walls of the railroad station, and other buildings, especially near the water front, were literally covered. On September 25 I counted thirty of these moths inside a closed trolley car on Whitney Avenue on the way to my office. For several days afterward I noticed them scattered throughout the city, but growing fewer. One newspaper came out with an article stating that the Brown-tail Moth had reached the city in great numbers and threatened to do much damage. During a residence of seventeen years in New Haven I have never before observed or collected this insect, though our collection contains specimens taken in Waterbury by Mr. H. S. Woolley. Such a swarm is certainly unusual.

W. E. BRITTON.

JOURNAL OF ECONOMIC ENTOMOLOGY PUBLISHING CO.

The annual meeting of the stockholders of this Company will be held some time between December 27 and 29, in connection with the meeting of the Association of Economic Entomologists at Washington, D. C. The precise time and place will be announced at the sessions of that Association. Members of the advisory board are hereby notified that it devolves upon them to nominate the elective officers.

E. P. FELT, *President*.

E. DWIGHT SANDERSON, *Secretary*.